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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,837	06/01/2001	John D. Foster	SP01-146 / 9272-3	3676
20792	7590	12/16/2003	EXAMINER	
MYERS BIGEL SIBLEY & SAJOVEC			HOFFMANN, JOHN M	
PO BOX 37428				
RALEIGH, NC 27627			ART UNIT	PAPER NUMBER
			1731	

DATE MAILED: 12/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/872,837

Applicant(s)

FOSTER ET AL.

Examiner

John Hoffmann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Election/Restrictions*

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-13, drawn to an apparatus for forming a fiber, classified in class 65, subclass 537.
- II. Claims 14-23, drawn to a method for forming a fiber, classified in class 65, subclass 435.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus can be used to practice a materially different process, such as one where the forming gas enters through the control tube and exits upstream of the first tube opening.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Randall Wayland on 5 December 2003 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-13. Affirmation of this election must be made by applicant in replying to this

Office action. Claims 14-23 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

It is noted that at present, the claims are broad enough that there is no undue burden on the Office - at present. Therefore claims 14-23 are also examined herein.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is no antecedent basis for "said door assembly". It is unclear if such is required.

Page 7, lines 28-30 of the specification gives a definition for a phrase. Somewhat similar language is used in the claims. It is unclear the claims require the same definition. Moreover, the definition refers to feature 120: examiner doubts that applicant wants the definition to be limited to feature 120, and thus it is unclear how much breadth should be given to "120" - and if it implies similar breadth for other parts of the definition.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6, 10 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagayama 5637130.

See any of figures 2-6 of Nagayama. For instance, figure 2: 16 is the draw furnace. The two ends are easy to see. The defined exit opening is where feature 22 contacts the furnace. 21 sets the furnace passage. 23 is the control tube which extends through exit opening. The first and second opposed tube openings, the tube passage, and the tube sections are easily seen. The buffer cavity is between 21 and

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23. The inner diameter of the tube is clearly less than the diameter of the furnace passage. As to the forming gas limitation, such is an intended use limitation: one could easily prevent gas from exiting from tube 22b. Moreover it is deemed that 20a is the forming gas, and 20b is "other gas". The claims are comprising in nature and are open to having other gas enter and exit the furnace. Figures 3 and 5 better show that substantially all the gas which forms the fiber (i.e. forming gas), exits via the tube. Comparing figures 3 and 4. One shows gas entering 17a, and the other entering 22b: clearly they are adapted to each accept gas. Therefore, one could insert gas into both ports, and the only place the gas could exit, would be the bottom of the tube. Therefore all of the gas which enters at 17a would have to exit from 22a.

Claim 2 is clearly met.

Claim 3: 23 is at least indirectly secured to the housing. At least secured sufficiently enough to make and use the invention. Alternatively, see figure 7 which shows it being directly secured. As to it being removable: one could use a sledgehammer, diamond saw or a laser to remove it.

Claim 4: 22 is the extended support tube.

Claim 10 is met as per figure 2.

Claim 13 is clearly met.

Claim 6: an opening is an opening. 22a is an opening which can be fitted with a door. The claim does not require a door or a door assembly - therefore Nagayama need not have either.

Claims 1, 7, 14-17, and 19-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Harding 4988374.

Harding's figure 1 tube structure is nearly identical to the Nagayam invention and thus meets claim 1 for substantially the same reasons.

For claim 7: see col. 3 line 6 discloses that the tube has silica (i.e. quartz glass).

Claims 14-17: by looking at the drawing and the associated text, it is clear the claims are met.

Claim 19: see col. 2, line 64.

Claim 20: See col. 3, lines 22-37. The iris is the door assembly.

Claim 21: 19 removes a sample of the forming gas which came from the furnace passage.

Claim 22: see col. 2, lines 6-8.

Claim 23 is clearly met.

Claims 1 and 5 are rejected under 35 U.S.C. 102( b) as being clearly anticipated by Kaiser 4030901.

Kaiser figure 2 clearly shows all of the structure. The particular gas flow is a method of use limitation.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-9 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagayama 5637130.

Nagayama does not disclose the dimensions. It would have been obvious to make the Nagayama furnace as large or as small as desired, depending upon how much fiber is desired, and/or what size preforms one has.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harding.

Claim 18: Harding does not disclose the dimensions of the apparatus. IT would have been obvious to have such a distance, depending upon how big a furnace one has, and how large the preforms are. IT is also noted that since one can arbitrarily define the junction between the tip and the fiber, one can arbitrarily define the distance.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Aikawa, Do, Harvey, Harding, Jeskey, Briere, Klop, Lysson and the five Japanese patents are cited as being related to the disclosed invention.



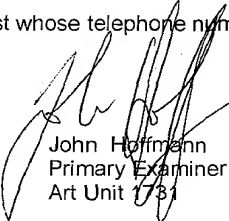
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is 703-308-0469. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 703-308-1164. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

  
John Hoffmann  
Primary Examiner  
Art Unit 1731

12-8-03

jmh